



December 2, 2011

VIA E-MAIL & FIRST CLASS MAIL

Ms. Trish Taylor, Community Involvement Coordinator
Hazardous Site Cleanup Division
U.S. Environmental Protection Agency, Region 3
1650 Arch Street
Philadelphia, PA 19103

Re: *Carter Road Residents, Dimock Township, PA*

Dear Ms. Taylor:

We are in possession of an extremely disconcerting email sent to the Dimock residents this morning, many of whom we represent. The email advises that a preliminary review of the PADEP data indicates that the contaminants in the groundwater do not present an immediate health threat to those who use it for household purposes. Presumably, this is based on comparisons with the maximum contaminant level (“MCL”) of some constituents present in the water. We strongly disagree that the well water does not present an immediate health threat to the Dimock residents and hope this letter aids the United State Environmental Protection Agency (“USEPA”) as it continues its review.

First, be advised that a major aspect to the determination by Cabot Oil & Gas Corp. and the Pennsylvania Department of Environmental Protection’s (“PADEP”) that Dimock homeowners’ water is safe to drink derives from sampling they provided to a laboratory they also retained to analyze two (2) sample sets for certain parameters, including metals. However, the results from that laboratory, Test America, are at best misleading and inapposite to the issue of groundwater safety given the instructions by Cabot to exclude most contaminants from analysis. Indeed, many of the samples were analyzed *after* being filtered through a 0.45 micron filter. As you are probably aware, this filter size is capable of removing very fine to colloidal sized particles. This filtration procedure was doubtlessly done by the laboratory at the request of Cabot to artificially lower the contamination concentrations and detection. By filtering the water samples, much of the total metals concentrations were removed, leaving behind what the lab sheets refer to as “dissolved” concentrations, which fall below MCL levels. Even after filtering some concentrations still exceed the MCLs and were not taken into account when the USEPA advised the water would not pose an immediate health threat.

As an example, here is the following recent Cabot data that you are in possession of:

Location	Iron <u>Unfiltered</u> (ug/l)	Iron <u>Filtered</u> (ug/l)	Iron <u>SMCL</u> (ug/l)	Mn <u>Unfiltered</u> (ug/l)	Mn <u>Filtered</u> (ug/l)	Mn <u>SMCL</u> (ug/l)
S-1 Sautner	5000	<50	300	200	0.19	50
FH-1	110	7.4	300	95	3.4	50
R-1 Roos	1600	<50	300	72	68	50
R-2 Roos	1400	14	300	74	67	50
TC-1	1100	27	300	190	200	50

Note that even after filtration, wells R-1, R-2, and TC-1 still failed to meet SMCL standards for Mn. In addition, the [Ex. 6 - Personal Privacy] well water, unfiltered, detected 10 ug/l of lead. The federal MCL for lead is zero (0) micrograms per liter; in Pennsylvania the MCL for lead is 5 ug/l. Prior to filtering, the [Ex. 6 - Personal Privacy] well's iron level exceeded the MCL standards by 16.7 times on September 1, 2011. Note that the Sautner residence had no sediment filters prior to Cabot conducting its natural gas extraction operations.

The data supplied by Cabot and presumably reviewed by the USEPA also shows violations relative to pH for sample locations D-1, H-1, and KDE-1. This is also true of the [Ex. 6 - Personal Privacy] well, where numerous pH values have been recorded in excess of pH 9 by the PADEP indicating that something is very wrong with the groundwater in Dimock, PA. This is further bolstered by the color of [Ex. 6 - Personal Privacy] groundwater that far exceeds the SMCL for color of 15 color units. Preliminary lab data from a November 22, 2011 sampling of [Ex. 6 - Personal Privacy] well also indicates the presence of low level hexanes, octanes, and decanes. This data will be forward to the USEPA shortly.

Additional recent sampling with results exceeding the MCL includes:

Location	Pb <u>(mg/l)</u>	Pb MCL <u>(mg/l)</u>	Mn <u>(mg/l)</u>	Mn MCL <u>(mg/l)</u>	Arsenic <u>(mg/l)</u>	Arsenic MCL <u>(mg/l)</u>
Carter	0.025	0.005	0.13	0.05	-----	0.01
S. Ely	0.029	0.005	0.50	0.05	0.015	0.01

As you are well aware, MCLs for groundwater/drinking water are meant to be applied to the water *as it is being used* by homeowners. Thus, if a homeowner did not filter their water, the MCLs should be applied to exactly what the homeowner used as their potable water supply. If a homeowner had some kind of filter in use prior to gas drilling activities, then the standards should apply to that water after the same filtration. No Dimock residents whom we represent who may have filtered their water prior to gas drilling activities did so with a 0.45 micron filter. Such a small filter size would probably readily clog. In the case of [Ex. 6 - Personal Privacy] now- turbid water, it is not conceivable that any particulate filter could filter out sediment and not clog the system in very short order. Thus, MCLs applied in Dimock should *not* be relative to finely filtered water. Instead, MCLs should be applied to homeowners' water as it formerly came directly from their wells, to their taps and ready for ingestion.



Chronic, low-level, exposure to fracking chemicals is too great a medical risk to assume. Our clients are not lab rats in an experiment. As you are aware, the following chemicals have been recently detected in the Dimock/Carter Road Area raw water: naphthalene, phenanthrene, butyl benzyl phthalate, 1-methylnaphthalene, 2-methylnaphthalene, ethylene glycol, diethylene glycol, triethylene glycol, 2-methoxyethanol, methylene blue active substances, gas range organics, acetone and ammonia (distilled). Although not presently regulated by the Environmental Protection Agency or the Pennsylvania Department of Environmental Protection and thus no MCLs exists, these chemicals are not safe for ingestion, in either the short or long term.

Contrary to the statement this morning, we do not feel it is wise for homeowners to potentially expose themselves to untested chemicals, even if a few that have been tested for appear to temporarily pass MCL standards. In light of the data and our analysis we request you retract the statement that the water is safe for consumption until a thorough review can be conducted and order that water deliveries be continued until such time as a water line is installed from a safe, potable source.

We appreciate the USEPA's assistance in this matter and hope the continued review supports a cautious approach bearing in mind that its recommendation may ultimately result in the long-term ingestion of this contamination by the Carter Road residents. Should you have any questions or wish to discuss this issue further, please feel free to contact me at (212) 267-3700.

Very truly yours,

Tate J. Kunkle, Esq.

cc: Robert Helverson, ATSDR

Ex. 6 - Personal Privacy